SATURDAY, JANUARY 18, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON A CASE OF EXOPHTHALMIC GOITRE.

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Delivered October 12, 1872.

GENTLEMEN,—The patient you see before you I would not have brought here but with her own full consent. She is the subject of a rare affection, and I was anxious you should have an opportunity of seeing this example of the disease, but, as it is one which is injuriously influenced, in my opinion, by mental, or I would rather say emotional, agitations, I repeat that I should not have brought her here before this large class but with her own consent. I told her yesterday, in the ward, that her disease was a rare and a very interesting one, and that I wished the young men who were endeavoring to prepare themselves for the business of the physician might see her. "I will take you for a short time before the class," I said, "if you will go willingly, and if you will promise me not to allow yourself to be agitated. I will keep you there but a short time, and you will render the science of medicine a good service, and do yourself no harm, if you go willingly, and keep yourself calm and still." At first she thought she could not go. I said, "Think over it, and if, tomorrow, you make up your mind to go, I shall be very much obliged to you, and you will receive no harm from it."

I took this course in order to save her from the moral disturbance which would have followed any peremptory or unexpected exposure of her case before this large class.

You will please to observe the peculiar expression of the face. The complexion is pallid, not white or semi-transparent as it is sometimes in anæmia, but it is pale; she looks tired, and there is a rather fixed appearance about the muscles of the face, as though she had waited, and were still waiting, for some hope deferred. She has learned to wait for a recovery. Her eyeballs protrude much more than usual; they look large, and are covered by the eyelids to a smaller extent than they are in the healthy face. Her eyes look, as I once heard a very clever lawyer of this city say of his own child, as though they were looking over into next week. She can close the eyelids over the balls when she tries, as you may see now, when I ask her to shut her eyes, but it seems to require more effort than is quite natural. In some of these cases, such is the protrusion of the eyeballs that the patient cannot quite close the lids, and thus the eye sometimes suffers from exposure to the air and dust.

When I uncover the neck, you see that she has a goitrous enlargement of the thyroid gland. This condition affects the right half of the gland more than the left, and yet the enlargement is considerably less than it was two months ago, when she entered the hospital.

Observe the action of the heart. It is beating 132 times in the minute. Its impulse is extended over a larger space than natural, and it has a peculiar, rapid, sudden, *staccato* beat. The apex-beat is below and on a line with the nipple, and therefore is carried an inch farther to the left, and somewhat lower, than it ought to be. On auscultation the two sounds are distinct, clearer and louder than usual, and there is a soft blowing systolic murmur heard in the second left intercostal space, at the point where the pulmonary artery approaches closely to the walls of the chest. This is a non-organic or anæmic murmur. I heard it yesterday in the ward, with Cammann's stethoscope, and when the heart was more quiet and acting less frequently than now, distinctly.

You can see that the carotids are beating with more force and over a larger space than usual, and when I apply a finger on one side of the enlarged gland, and the thumb on the other, over the inferior thyroid arteries, I feel their pulsations very forcibly, and I find that every diastole of these arteries is attended by a thrill or purring tremor,—the *frémissement cataire* of the French. The thrill is very distinct and strong, and when the stethoscope is placed over these vessels there is a loud rushing murmur with every contraction of the heart.

Protruding eyeballs, enlarged thyroid gland, rapid, quick, and throbbing heart, unusual pulsation of the carotids, enlarged and thrilling inferior thyroid arteries, anæmia, general debility, an indescribable feeling of general nervousness or distress,—these are the prominent features of the case; and this group of morbid phenomena constitute the disease called Basedow's or Graves's disease, exophthalmos, or exophthalmic goitre; and thus the diagnosis is made.

I will now send the patient away, as I do not care to expose her to the excitement of this scene any longer than is really necessary, and I will read you the notes of the case:

Mary McC., æt. 25, single, and by occupation a laundress, was admitted August 10, 1872.

Her general health has always been excellent, but for some time she has been working very hard. For six months previous to the first appearance of her malady she suffered frequently from severe headaches, but she had no mental disturbance of any kind.

In the spring of 1871 her friends observed a sudden protrusion of the eyeballs, and soon after she noticed a burning and smarting sensation in her eyes, and that her heart beat more violently than usual. She feels confident that when the protrusion of the eyes first appeared there was no enlargement of the thyroid gland. The goitre did not show itself until October, 1871.

On admission, the appearance presented by the patient was very characteristic of the disease from which she suffered. The eyeballs protruded greatly; the thyroid gland was large and pulsated visibly, and the action of the heart was frequent and violent. On placing the hand over the goitre, a marked thrill was felt in the inferior thyroid arteries. A soft murmur was heard at the

pulmonic orifice, but no other abnormal cardiac sound was detected.

There was no excessive flushing of the face, and her general condition was good. She is more readily fatigued than formerly, but never feels giddy, and sleeps well. Her memory is good, and her mental condition unchanged.

She was placed in bed, with directions to remain there, and given digitaline gr. $\frac{1}{60}$ three times a day, with a pill consisting of quiniæ sulph. gr. j, pil. ferri carb. gr. ij, ext. belladonnæ gr. $\frac{1}{12}$, three times a day. On August 19, her condition being unchanged, she was ordered Niemeyer's pill: ext. opii gr. $\frac{1}{8}$, digitalis gr. ss., sulph. quiniæ gr. j., t. d., and the other medicine stopped.

August 28.—Goitre seems smaller; pulse 96.

Sept. 2.—Eyes more prominent, and pulse 120 per minute, full and bounding. There is nothing to account for this change in her condition. She has had no worry or excitement, and she denies having been out of bed. Ordered a belladonna plaster over præcordia, and the compound gentian mixture three times a day.

Sept. 5.—Pulse 114.

After this the pulse gradually diminished in frequency until Sept. 15, when it had fallen to 72 per minute. The eyes protruded less, and the thyroid was much smaller.

Oct. 11.—Condition very much the same as when last note was made.

Now, gentlemen, the pathology of this disorder is not clearly understood. That it is usually connected with anæmia is true; but that anæmia is the only disorder I cannot believe, since I see so many worse anæmias without any such developments as you see here.

The most reasonable scientific explanation of these symptoms that I know of is the one which assumes that there is some loss of power in the controlling influence of the vaso-motor nerves, which allows the heart to act with unusual force and frequency, and which permits the arteries of the neck to undergo, for the time being, a larger diastole than is their law in the healthy state. Niemeyer supposes that there is a sub-paralytic condition of the vessels of the muscles of the heart. I have seen in my private practice four very severe cases of this disease, one of which proved eventually fatal, in all of which the patients (women) had undergone great agitation of the mind, or, I had better say, of the emotions. One had been dreadfully hysterical in early life from a love-affair. Her attachment to a young gentleman was opposed by her parents, and she was very ill with a long train of hysteric phenomena in consequence. Finally their consent to her marriage was obtained, and she recovered, but the shock left her nervous and unsettled, and, after the birth of a second child, she had an attack of this disease, with all the phenomena above described, which lasted nine months, during which she almost died daily,—I mean in her own imagination,—but finally, under iron, digitalis, opium, nutritious food, prolonged rest, and correct moral management, including assurances of final recovery, she got entirely well.

Another case was that of a young married woman with two children, whose husband was not successful in business, and who, being obliged to live in a state of irritating dependence on some of his relations, became unhappy, unsettled, despondent. Her heart began to palpitate, its action became frequent, and she finally developed this disease. She left the city after a time, improved temporarily, then got worse, and died, after three years, of dilated heart.

A third case occurred in a young woman who was most unhappily married. Her husband proved a rascal; had to flee the city. After several years of anxious doubt and suspense, attended with many psychological irritations, she obtained a divorce. I believe she formed another attachment, and had a severe and well-marked attack of this disease, of which she finally recovered, to be attacked a year later with diabetes mellitus, of which she died.

The fourth case was that of a widow, forty years of age. In her early married life her husband had been in a prosperous business; she had four children, and was happy, contented, and in excellent health. Her husband died of consumption, and left her with a very moderate, indeed an insufficient, income. She had to bring up her family on this small income; and then one of her children gave her a great deal of anxiety, and, after several years of these carking cares and this moral pressure, she developed this disease. She was attacked in October, 1868, and soon had all the signs you have seen in the patient I showed you. I kept her for eight months on her bed, and in June, 1869, sent her to the country. She was then much better, but not well. In July of 1869 she went to the seashore, took too much exercise, and became worse again. In September, 1869, she returned to Philadelphia, and I again ordered her to bed. She improved very much, and in December of that year was able to be up and about the house without injury. She continued slowly to improve, and in November, 1870, went to Richmond, Virginia, where she remained for six months, returning to this city in May, 1871, in very fair health. She passed the summer of 1871 at Media, near this city, where she was very well. Since then she has been well, except that she finds that her heart beats too much when she is fatigued or worried. I saw her a few days ago, weighing 160 pounds, a fine, handsome, healthy-looking woman. The heart is quiet, and exhibits no murmur whatever; the carotids beat quietly, the inferior thyroids have ceased to pulsate too strongly or to thrill, and the thyroid gland has returned to its natural size. She told me that her eyes would still project a little when any worry has occurred to make her heart beat too much. She took digitaline all the while she was under treatment, with a pill of belladonna, quinia, and iron; her diet was nutritious and digestible, and everything was done to keep up hope and cheerfulness. I told her all through that she ought to get well, and she has got well.

I have seen some four other cases, three of which were in this hospital, and one about which I was consulted in private practice. One of the cases occurring in this house died; the others I lost sight of.

I have tried to discover some moral or emotional cause in the young woman you have just seen, but she denies the existence of any worry or fret. Whether

she speaks candidly I do not know. We cannot get at the whole truth in a hospital as we can in private practice, where we know the whole family history.

I must say that I cannot but think that, in the four cases I have rapidly detailed to you, the psychological condition had something to do with the disease. If so, how do worry and moral agitations act to cause this curious disease? If you will look into Claude Bernard's charming work, "Leçons sur les Propriétés des Tissus Vivants" (Paris, 1866), in the last chapter—that on the physiology of the heart and its relations with the brain—you will find some curious facts and explanations which I think bear upon these cases. At all events, his thoughts and descriptions appear to me to give some clue to the manner in which my patients may have had their circulation disturbed by the state of psychological unrest in which they had so long lived.

Bernard remarks that, for the physiologist, the heart is the central organ of the circulation, and for that reason an organ essential to life. But the word heart, he says, has passed into the language also of the poet, the romance-writer, and the man of the world, with other meanings. The heart, for these, is no longer a living motor, driving the blood into all parts of our body; it is also the seat and emblem of the noblest and purest sentiments of the soul.

He shows that the heart acts by a power of its own, and that its connections with the brain through the pneumogastrics are but to place it in proper relation with that great nerve-centre. He asserts that, so long as the nerves of the heart are not excited, the organ beats and preserves its natural functions, but that when its nerves are excited, naturally or artificially, it becomes relaxed or falls into a state of repose. When a galvanic current is applied to these cardiac nerves, the effect produced depends upon the strength of the current. When powerful, the heart ceases to beat; when more gentle, the action of the organ is for the moment arrested or impeded, to be followed soon by more rapid and energetic contractions.

It is impossible for me to give you all or nearly all of his statements and explanations, for the paper is quite a long one, but it leads to the conclusion that the common language of life is founded on a true physiological foundation. When one says that love makes the heart beat, or that one loves with all his heart, the language is not merely a poetic fervor, it is a physiological reality. "When a woman," he says, "hears some tender words which arouse in her a soft emotion, the heart feels the impulse instantly, before either reason or reflection. The sentiment begins to show itself by a slight arrest of the heart, imperceptible to all but the physiologist; the heart, pricked by the nervous impression, reacts in palpitations which make it bound and beat more strongly in the chest, and drive the blood strongly to the brain, whence come the heightened color of the face and the expression indicative of the happiness experienced." When it is said that the heart is broken by grief, substantive phenomena have occurred in the action of the heart. Has the painful impression been too sudden, the heart has been arrested; blood no longer reaches the brain, and syncope or nervous crises are the result. There is good reason, therefore, that tragic events should be communicated to those who have to meet them only with care and management. When it is said that the heart is full, after we have suffered long from grief or other painful emotions, this also answers to certain peculiar physiological conditions of the organ. Long-continued saddening emotions become incapable of arresting the action of the heart, fatigue and weary it, retard its pulsations, prolong its diastole, and cause a feeling of fulness and constriction in the præcordial region.

It is to this latter condition that I wish particularly to call your attention. May it not be that, in some of the cases I have cited to you, in which certainly the disease we are studying followed upon prolonged anxieties, the wear and tear of grief, or the pressure of disappointment, we ought to ascribe the disorder of the heart's action, which at last became, by habit, a second and an unsound nature, to these moral causes? And may we not ascribe some of the phenomena of hysteria to the same chain of causes, and do you not see how vitally important it must be that we should study the moral management of such cases more carefully than we are in the habit of doing?

After having seen several cases of the disease, and having read and thought much about it, I am prepared to recommend to you the treatment which is being pursued in the case you have just seen, and which proved successful in the two last cases I have had in private practice.

The special points in this treatment are, the use of abundant quantities of wholesome, nutritious food, prolonged horizontal rest of the body, the endeavor to promote, by all possible means, a cheerful condition of the mind, and the use of iron in some shape, belladonna in small doses, and digitalis. In some cases, arsenic, as a blood-tonic, and bromide of potassium or sodium, in moderate doses, to allay general nervousness, are of great use.

And first, as to the diet. This must depend a good deal on the habits of the patients, and their own experience through life as to what may suit them specially.

The great object to be kept in view is the supply to the body of the amount of food necessary to secure its due growth and maintain its strength. If the patient takes only a half, or a fourth, or an eighth of the amount of food issued to an ordinary soldier, or sailor, or laborer, it is plain that she is taking too little, and it is the business of the doctor to insist upon more. Sometimes there is diarrhœa, at other times constipation, in these cases. Of course, the food must be regulated so as to suit either of these conditions which may exist.

Next, as to rest of the body. I believe the best thing to be done in this direction is to keep the patient as much a fixture on the bed or sofa as possible. In the two last cases I have had in private practice, I carried out this rule so rigidly in one that for seven long months the patient rarely left the bed. On a few occasions she sat up in an easy-chair for a short time; but, as each of these efforts

was followed by increased palpitation, greater frequency of the heart's action, and more severe general distress, the patient came into my way of thinking, and I had very little further trouble in enforcing the law of rest. In the other, rest, almost continuously horizontal, was kept up for several months; and both these cases recovered. Sometimes the rest cannot be enforced so persistently; and, when we cannot get the whole loaf, we must e'en be content with the half.

The mind should be kept as tranquil as possible. Hope must be infused into the patient's mind by cheering encouragement, by pleasant society, by patient and continued assurances that time and treatment will probably overcome the evil.

Iron, in some shape, should be given steadily. In one case, a pill of extract of belladonna, gr. $\frac{1}{12}$, of sulphate of quinia, gr. j, and Vallet's mass of iron, gr. ij, was given three times a day for many months. In other cases, wine of iron, or the ferrated elixir of bark, with arsenic, may be given.

Digitalis I have used in all my later cases, and always with benefit. I believe digitaline granules gr. $\frac{1}{60}$, three times a day, have sometimes answered perfectly. In the case now in this house, the violence and frequency of the heart's action have subsided more rapidly and certainly under Niemeyer's pill than with the digitaline. This pill is made of watery extract of opium, gr. $\frac{1}{8}$; powdered digitalis, gr. ss.; and quinia, gr. j: every six hours. This patient takes also the compound gentian mixture of the hospital, which contains five grains of the ammonio-citrate of iron to each tablespoonful of the mixture. The dose is a tablespoonful three times a day.

In conclusion, I will merely say that in no disease, except insanity, is there greater need of patience, perseverance, and close attention to the patient from day to day, and from month to month, than in this; but that, with these, and some general plan of treatment such as that I have just sketched, there is always good hope of an ultimate recovery.

ORIGINAL COMMUNICATIONS.

REMARKS ON SOME OF THE PHYSIOLOGICAL AND THERAPEUTICAL ACTIONS OF VERATRUM VIRIDE.

Read before the Medical Library and Journal Association of New York.

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EVER since the publication of Dr. W. C. Norwood's *brochure** in 1851, the chemistry, the physiological and the therapeutical actions of veratrum viride have attracted the attention of the profession in the United States, also to some extent in France and Germany. In the May 1st issue of the *Medical Record* I published an elaborate chemico-physiological investigation of its composition and actions; but, owing to the want of time and space, I was unable to extend it as fully as I should have desired.

In these few remarks I will limit myself to the discussion of the three following points:

I. Its action as a hæmostatic.

II. Its thermic action.

III. Its mode of administration.

ITS ACTION AS A HÆMOSTATIC.—In an elaborate series of experiments, Dr. H. C. Wood, Jr.,† was the first to make an experiment with Mr. Bullock's so-called pure viridia,‡ which demonstrated the value of veratrum viride as a hæmostatic, as follows:

"*Experiment* 17.—I exposed the pneumogastrics and femoral artery, under ether, in a powerful, very thick-necked Scotch terrier. 11.30 A. M.—Placed Bernard's cardiometer *en rapport* with the femoral artery. Arterial pressure 120 to 130 millimetres; heart-force (single beat) 5 to 10 m. Pulse 186; gave, hypodermically, gr. 1½ viridiæ sulph. 11.35.—Arterial pressure 115 to 125 m.; heart-force 5 to 10 m. 11.40.—Pulse 160; arterial pressure 110 to 120 m.; dog quiet. 11.45.—Pulse 128. 11.55.—Pulse 80; arterial pressure, when dog is quiet, 85 to 105 m., going to 120 m. when dog struggles. I now attempted to cut the pneumogastrics. In doing this on the left side, *the carotid was cut* instead of the nerve, *and there was a profuse gush of blood, which, however, ceased in a moment or two spontaneously, aided only by pressure on the outside of the neck.* The left pneumogastric was not cut. 12 noon.—Arterial pressure 60 to 70, going up to 100 m. when dog struggles. Pulse 92. 12.5 P.M.—Pulse 92; arterial pressure 85 to 88 m. 12.8.—Pulse 92; arterial pressure 80 to 85 m., going up to 100 m. when dog struggles. 12.15.—Pulse 80; arterial pressure 75 to 80 m., going up to 90 m. when dog struggles. An attempt was now made *to kill the dog by cutting the femoral artery at Poupart's ligament. The bleeding, however, ceased spontaneously in a very little while, without seriously affecting the dog. The force of the circulation had been so greatly lowered by the alkaloid, that there was spontaneous arrest of hemorrhage in both carotid and femoral artery, without dangerous loss of blood.*"

Doctors J. W. Collins§ and H. N. Eastman,‖ in two able papers issued simultaneously, published the first reports of its therapeutical application as a hæmostatic. The former states that—

1. A case of hæmoptysis, which had resisted all the usual remedies, yielded almost at once to five-drop doses of Norwood's tincture, administered every four or six hours.

2. A case of aneurism of the left subclavian, the result of an injury to the vessel in its middle third, or just behind the scalenus anticus muscle, from the small blade of a pocket-knife. The tumor was about the size of a hen's egg, and involved all the second portion, and probably the first also, of the vessel. It was accompanied with the characteristic thrill, pulsation, pain in the shoulder and arm, absence of radial pulse, coldness of limb, etc. Not deeming an operation advisable, and digital compression being impossible, the doctor administered

* *Charleston Med. Rev.*, vol. vii. p. 768.

† *Am. Jour. Med. Sci.*, Jan. 1869.

‡ *Am. Jour. of Pharm*, Sept. 1865, and March, 1866; *Med. Record*, May 1, 1872; *Philadelphia Med. Times*, August 15, Sept. 16, Oct. 12, and Nov. 2, 1872.

§ *American Practitioner*, Sept. 1872.

‖ *Buffalo Med. and Surg. Jour.*, Sept. 1872.

the veratrum, in the hope that it might *so lower the action of the heart as to favor the formation of a coagulum* in the aneurismal sac. He began with five-drop doses, increasing the dose, drop by drop, every third hour, till the full sedative effect of the medicine was produced. It was then continued, in doses of from five to twelve drops, for ten days. At the end of that time the tumor had entirely disappeared, a small hard lump only remaining, with very slight pulsation, no pain in the arm, no thrill, and considerable pulse at the wrist. The patient, a stout young negro, thinking he was well, left the doctor, but returned in two weeks with most of the symptoms as well marked as at first. The treatment was then resumed, and continued for fifteen days, the last six merely to make sure of a perfect recovery; for the tumor, with all its attendant symptoms, had disappeared, the radial pulse had become normal, and the natural temperature of the limb had returned. Twelve months afterwards he was still perfectly well.

3. In active and passive menorrhagia he has had perfect success with it.

4. In a secondary hemorrhage following amputation, equally so.

5. In two cases of carcinoma of the uterus, it arrested the hemorrhage.

6. In epistaxis, he has found it uniformly successful.

7. His friend Prof. J. T. Gilmore, of Mobile, used it with entire success, at the doctor's suggestion, in a case of secondary hemorrhage following amputation of the thigh, after other means had failed, and in which the bleeding was so persistent as to threaten life.

Dr. Eastman relates the history of two cases of hæmoptysis in which he arrested alarming hemorrhages which continued to recur notwithstanding the use of the ordinary remedies. He reduced the pulse to 45 in each case, by means of fifteen-drop doses of Tilden's fluid extract of veratrum viride, administered every three hours, till they complained of a "queer feeling" about the heart, when the pulse fell below 45; then, very properly, from the fear of causing a heart-clot, the remedy was only administered every four hours; the circulation thus kept under perfect control for four weeks, when it was allowed to return to its normal standard. There was no return of the hemorrhage in either case; and one, a clergyman, was enabled, by a change of residence, to resume his professional duties; the other, a physician, after a temporary change, resumed his practice.

Dr. Eastman advises to carry the administration of the remedy far enough to reduce the normal circulation to the lowest point compatible with the patient's safety.

Dr. J. W. Collins says "it should be given in doses of from three to fifteen drops (Norwood's tincture), repeated every one, two, or three hours, according to the urgency of the case,—always watching its effects."

Neither of them observed any unpleasant effects, such as nausea and vomiting.

I have administered the tincture for the purpose of arresting hæmoptysis, and to prevent its recurrence, in one case. The patient began with five-drop doses, which he gradually increased to ten without any appreciable effect on the circulation. I then administered it in fifteen-drop doses repeated every three hours, reducing the pulse from 101 to 60.

It is therefore evident that veratrum viride is valuable as a hæmostatic both in active and passive, also in traumatic and idiopathic, hemorrhages. That it acted in each case by modifying and regulating the heart's action and the circulation, there is no doubt. The study of its *modus operandi* is, therefore, of interest.

Dr. S. R. Percy,* in his experiments on bats and frogs, observed that the capillaries in the wings of the former and in the webs of the latter immediately became dilated under the influence of hypodermic injections of the drug, and that the movement of the blood-corpuscles through them was first retarded and finally ceased entirely.

M. Limon† noticed in his observations that the sphygmograph indicated an increased arterial tension when the pulse was reduced in frequency.

Dr. H. C. Wood, Jr.'s experiment‡ with Bullock's veratroidia and Bernard's cardiometer demonstrates that the peculiar tension observed by Limon was probably due to the increased power of the individual beats of the heart before its final paralysis by the toxic effects of the alkaloid. Dr. Wood's experiments further show that there was a marked reduction both in the force and rapidity of the movement of the blood, that the heart is not much affected at first, but that finally there is also a loss of power in the single beat. That its action on the circulation is through the sympathetic he also demonstrated by the experiments in which he divided the pneumogastrics.

Dr. C. Boldt,§ in eleven experiments on curarized frogs with veratria, the mode of action of which, although more powerful, is the same as that of veratrum viride, showed that it directly paralyzes the heart and arterial muscles, there being an immediate lowering of the pulse-frequency, in the size and force of its wave, and an increase in the lumen of the vessels.

It is well known that the circulation depends primarily on the heart's action, next, upon the contractile action of the arteries, finally, upon the slight action of the capillaries, and that the veins are passive agents.

All the above-mentioned observers have demonstrated that the arteries and capillaries are primarily affected; the heart becoming so secondarily. Dr. Wood, that the action of veratrum viride is independent of the cerebro-spinal centres. Schroff and Guldens, that veratrum acts primarily on the vasomotor nerves.

These facts demonstrate that its action as a hæmostatic is due, primarily, to its action on the arterial system; and Dr. Wood's experiment (No. 17)

* Prize Essay.
† *Bull Gén. de Thérap.*, Jan. 30, 1869.
‡ Experiment 18.
§ *Schmidt's Jahrbücher*, *The Doctor*, Sept. 1, 1872.

affords a beautiful illustration of the fact, the arterial pressure being at the beginning from 120 to 130 millimetres; in twenty-five minutes, 85 to 105, when the dog *struggles* rising to 120; the *carotid was then cut*, followed by a profuse flow of blood, which ceased spontaneously in a moment or two; five minutes, arterial pressure 60 to 70, rising to 100 when the dog struggles; fifteen minutes, pressure 75 to 80, rising to 90 with struggles. An attempt was then made to kill the dog by *dividing the femoral*, which was followed by the *spontaneous arrest of the hemorrhage without dangerous loss of blood.* I believe that the "profuse gush of blood" following the section of the carotid, and the loss of blood following the section of the femoral, were due to the individual action of the heart, its *vis a tergo;* for there would have been no spontaneous arrest of the hemorrhage if the contractile action of the arteries had been intact, especially as there was "*no dangerous loss of blood.*"

By comparison, we have a beautiful illustration of the action of ergot and veratrum as hæmostatics; but here the analogy ceases, for veratrum paralyzes, whilst ergot *stimulates*, causes a *contraction*, and increases *the pressure*, as shown by Dr. Alfred Meadows: he injected, subcutaneously, one grain of ergotin, in solution, into the web of a frog's foot; the circulation was observed to become much quicker, it then stopped for a few seconds, and oscillated in a spasmodic, jerking manner, and about half an hour afterwards the blood-current returned to its normal flow.

Dr. Brown-Séquard found that the vessels of the pia mater of a dog contracted during its administration, and that it acted on the spinal cord, diminishing its reflex action.*

Boldt observed in twelve experiments on curarized frogs with ergotin, that it caused a constant lowering of the rapidity of the pulse, accompanied with peristaltic or wave-like contractions and expansions of the artery; also by Nichols's and Mossop's† observations on the retina, that the ergotin diminished the capillary tint of the disk. Veratrum diminishes the blood-pressure, and equalizes the flow.

Dr. C. L. Holmes‡ has demonstrated that ergot increases the pressure in the large vessels, owing to the contraction of the minute vessels by an action on their muscular walls, and that *previous division of the vaso-motor nerves does not prevent the contraction of the minute vessels.* This diminution of calibre occurs also in the minute pulmonic vessels, causing a temporary diminution in the pressure of the systemic arteries.

We have, then, two hæmostatics; one arresting hemorrhage through its action on the vaso-motor nerves, the other by its action on the spinal nerve-centre. *The ergot arrests it immediately by pressure and contraction; the veratrum not so rapidly, but prevents a tendency to a recurrence by diminishing and equalizing the arterial pressure.*

In the treatment of aneurisms, we again have a remarkable analogy of effect between the two. Langenbeck,§ Dutoit,‖ and others have demonstrated the efficacy of hypodermic injections of ergotin in aneurisms, one of which was situated in the right supra-clavicular fossa; it acted by pressure and contraction; whilst the remarkable action of veratrum in the cases of aneurism reported by Dr. Collins was not due so much to its action on the heart as to its action on the arteries, thereby diminishing the rapidity and force of the circulation, and favoring the formation of a *laminated clot* in the aneurismal sac, as is done in the treatment of aneurisms by compression, and which occurs in those cured spontaneously.

Its Thermic Influence.—Bärensprung, Traube, Wunderlich, Seguin, and others,¶ have demonstrated the value of the thermometer as a means of diagnosis and prognosis, also as an indicator of therapeutical applications. Although many have written on veratrum viride and its actions, only Oulmont,** Limon, E. Amory, and S. G. Webber†† have alluded to its thermic action. It was also strikingly shown in the experiments that I made with one of its alkaloids, the veratroidia, and with its two alkaloids when combined, the temperature being invariably reduced from two to five degrees, whether in physiological experiments or in its therapeutical application. These facts would most certainly lead us to conclude that its great power in inflammatory and febrile affections is in a high degree due to this action; and would it not be well for us to study its action more closely in those affections in which the temperature rises to 108.°30 Fahr., the prolongation of which would indicate a fatal termination?

Its *modus operandi* in these cases as a depressant of caloric can only be explained by its primary action on the vaso-motor nerves through the circulation. For if this action of veratrum viride and of its alkaloids was due to their action as spinal motor depressants, as has been asserted by some observers, it would disprove the observations of Schiff and others, that the increase of caloric was due either to paralysis of the spinal nerve-centre, or to an action independent of the section of the sympathetic nerve. Nor can it be explained exclusively by the supposed accumulation of carbonic acid in the blood, and its subsequent action on the cerebro-spinal centres; for in all the recorded cases of poisoning there is not a single one noted in which the patient died from asphyxia or coma; nor did they even present the appearance of either. It is, however, true that in various experiments the animals *apparently* died from asphyxia; but all the observers agree as to the heart's action being arrested at the diastole, which rather confirms Maurice Schiff's‡‡ and C. Boldt's views; especially as the heart failed to respond to electricity,

* *Archives de Physiologie*, 1870.
† *Practitioner*, Sept. 1868.
‡ *Brit. and For. Chir. Rev.*, p. 205, July, 1872.

§ *Berliner Klinische Wochenschrift*, 1869.
‖ *Langenbeck's Archiv*, Bd. xii. No. 3.
¶ Wunderlich's and Seguin's Med. Thermometry.
** *Bull. Gén. de Therap.*, lxxiv., p. 145, 1867.
†† *Boston Med. and Surg. Jour.*, 1869.
‡‡ *Imparziale de Firenze*, 1870.

whilst the voluntary muscular fibres retained their contractility.

I conclude, therefore, that—

I. Its action as a hæmostatic; and

II. Its action as a depressant of caloric, are due entirely to its action upon the vaso-motor nerves.

(To be continued.)

A CASE OF LARGE SMOOTH WHITE KIDNEY (CHRONIC CATARRHAL NEPHRITIS.)

Reported, with specimens, to the Pathological Society of Philadelphia, December 12, 1872,

BY JAMES TYSON, M.D.,

One of the Attending Physicians to the Philadelphia Hospital, etc.

C. R. C., a native of Pennsylvania, aged 28 years, a painter by occupation, was admitted to the Philadelphia Hospital Sept. 4, 1872. He was in good health until three years ago, when he became affected with what appeared to be epileptic convulsions. He had, at this time, repeated convulsions, which recurred at the end of six months, and again six months later. Since then they have been increasing in frequency, until at present there is not more than ten weeks' interval. He had the last fit five weeks before admission.

He has been frequently exposed to wet and cold weather, and during the Chicago fire such exposure continued for several days, a few days after which he entered a hospital in that city, with diarrhœa. In November, 1871, swelling of the feet appeared, and about the same time he noticed puffiness of the eyelids in the morning on rising. Gradually this œdema extended, until the whole body became involved. The condition of his kidneys was recognized in the Chicago Hospital, and he was treated with "broom tea" and hot-air baths.

On admission, his condition was as follows: His face was swollen, sallow and sodden in its appearance, his extremities were œdematous, and there was some ascites, but no hydrothorax. He was freely passing urine which was highly albuminous and contained granular and hyaline casts. He was ordered f℥ij of solution of the acetate of ammonia three times a day, with solution of the acetate of iron as often.

On Nov. 30 is found the following note: "He is passing 65 ounces of urine in twenty-four hours, and the swelling appears to be steadily diminishing, but it is still quite decided in the face. There is still abdominal effusion, while his legs and arms pit somewhat on pressure."

Nov. 12.—This morning the right side of his face was very much swollen, though he is still passing 65 ounces of urine in the twenty-four hours. Infusion of scoparius, f℥ij three times daily, was ordered internally, and cloths wet with infusion of digitalis were directed to be applied to the abdomen. The solution of acetate of ammonia was omitted.

Nov. 13.—He has had three convulsions in the past twenty-four hours, during which he has passed but 34 ounces of urine. His face is enormously swollen, and he can scarcely open his eyes. He was ordered, in addition to the above treatment, ⅛ gr. of elaterium.

Nov. 14.—Elaterium has operated freely. Condition little altered, but has had no more convulsions.

Nov. 23.—His face seems less swollen, but the ascites is marked. The urine is almost solid with albumen, and contains highly granular casts and compound granule-cells. He was ordered in addition to the above a grain of digitalis and a grain of squills three times a day. The infusion of digitalis to the abdomen, which was discontinued several days ago, was again ordered, and the broom tea was continued. He is growing weaker.

An ophthalmoscopic examination of the eyes by Dr. William F. Norris gave the following results: *Right* eye. The veins and arteries of the disk have nearly their normal size; the fibres of the retina, spreading out from the disk, whitish and œdematous, can be followed nearly the disk's diameter into the retina; this condition is more marked along the course of the large veins. The choroid between the disk and macula lutea appears woolly and granular. There are no blood extravasations, no white patches. The macula is plainly visible, the fovea centralis showing yellow, reddish-brown pigmentation around it. *Left* eye nearly in the same state.

Nov. 27.—Bowels are quite loose, and swelling in abdomen is evidently diminishing. Urine 44 ounces.

Nov. 30.—Has had numerous watery stools since last note, with which urine was also passed, so that its quantity could not be accurately estimated. Œdema and ascites are diminishing. A little opiate was ordered to control the bowels. All other treatment, except by stimulants, omitted.

Dec. 2.—Œdema is almost absent from the extremities; the face is still swollen, but the abdominal effusion is greatly diminished. Evacuations are still watery, but not so numerous or large. Passes urine with stool, so that quantity is unknown. Is rapidly growing more feeble.

In 640 cc. of urine, sp. gr. 1009, passed from 2 P.M. November 30 to 2 P.M. December 1, a volumetric analysis determined 3.424 grammes, or about 52.8 grains, of urea. He died suddenly on December 3, 1872, neither in coma nor convulsions.

Post-mortem examination, eighteen hours after death. Œdema has almost entirely disappeared. No effusion in *pleural cavities*; slight old adhesion in lower part of left lung. The *pericardium* contained f℥iijss of fluid. There was found in the *left ventricle* a white, firm, fibrinous clot which extended into the aorta five inches, furnishing a perfect mould of the arch, from which passed off also as perfect moulds of the innominate artery and its two divisions, and of the left carotid and subclavian with their chief branches. In the *right ventricle* was also found a clot extending into the pulmonary arteries and branches. The *spleen* was elongated and lobulated, and contained an infarctus, but was otherwise normal in structure. The *kidneys* were perfect examples of the large smooth white variety, the left weighing 11¼ ounces, the right 11 ounces. The capsule was readily removed, and on section the convoluted portion was greatly enlarged, and contrasted strongly in its dead-white color with the normal red of the cones. An attempt to minutely inject one of these kidneys was unsuccessful. *Microscopical* examination showed the tubules and the intervals between them to be filled with granular matter.

Remarks.—This case presented the usual course of a so-called chronic catarrhal nephritis. The point of evident interest is the connection between the convulsions and the disease of the kidneys. Were they the result of uræmia? Much might be written upon the subject without even then definitely settling the question. The convulsions first made their appearance three years prior to his death. Renal disease was recognized one year before he died. This affection was, however, of a kind, as confirmed by post-mortem examination (catarrhal nephritis), which is not insidious in its irruption, but manifests its characteristic symptoms more or less suddenly; and though commonly attended by convulsions in its latter stages, these are seldom the first discovered symptom. Had the case proved to be one of *chronically-contracted kidney*, which often

exists for years without manifesting itself by any symptom, and as often without previous warning explodes in a convulsion, a relation between the early convulsions and the disease might be admitted. As it is, we are inclined to admit none; but to consider the patient an epileptic, who contracted, by exposure, acute nephritis, which passed over into the large white kidney (chronic tubal nephritis of Dickinson), of which he died in something more than a year after the renal affection set in.

That the convulsions were, however, at a later stage influenced by the disease and rendered more frequent by uræmia, we think is beyond question; and that the convulsions which he had while under treatment at the hospital were at least due to the action of the peculiar poison of uræmia upon a brain epileptically susceptible, if this poison was not the sole cause, is proved likely by the results of volumetric analysis, which showed a marked diminution in the normal proportion of urea in the urine.

The immediate cause of his death, as shown by the post-mortem examination, was evidently heart-clot.

Appended is a table of the quantity of urine passed per twenty-four hours, during a portion of his residence in the hospital:

Oct.	5	83 oz.	Nov.	3	50 oz.
"	6	80 "	"	4	50 "
"	7	70 "	"	5	70 "
"	8	80 "	"	6	60 "
"	9	130 "	"	7	60 "
"	10	116 "	"	8	65 "
"	11	116 "	"	9	50 "
"	12	110 "	"	10	60 "
"	13	80 "	"	11	54 "
"	14	20 "	"	12	65 "
"	15	75 "	"	13	65 "
"	16	60 "	"	14	16 "
"	17	70 "	"	15	10 "
"	18	60 "	"	16	20 "
"	19	65 "	"	17	unknown
"	20	65 "	"	18	"
"	21	65 "	"	19	44 "
"	22	60 "	"	20	44 "
"	23	80 "	"	21	32 "
"	24	70 "	"	22	26 "
"	25	75 "	"	23	52 "
"	26	60 "	"	24	52 "
"	27	45 "	"	25	52 "
"	28	60 "	"	26	44 "
"	29	65 "	"	27	52 "
"	30	40 "	"	28	44 "
"	31	50 "	"	29	47 "
Nov.	1	65 "	"	30	unknown
"	2	60 "	Dec.	1	25 "

NOTICE OF AN ARTICLE BY GIRAUD-TEULON ON THE TRANSIT OF VENUS OVER THE SUN.

BY GEORGE C. HARLAN, M.D.

At a time when every one who reads the newspapers feels some interest in the transit of Venus over the sun, announced by astronomers for 1874, a short notice of an article on the subject, from an ophthalmic point of view, by Giraud-Teulon, may not be out of place. It appeared in a recent number of the *Annales d'Oculistique*, in the form of a criticism of a lecture by M. Wolf, of the Paris Observatory.

Astronomers look forward to this transit of Venus as an event of great interest and importance, as affording an opportunity to determine more exactly the distance of the earth from the sun; and several of the European governments are already occupied with preparations for observing it correctly.

Of course, the accuracy of the calculations based upon the observations will depend in a great measure upon the exactness with which the precise moment of contact of the two disks is noted; and this is the point in which oculists are interested.

In this and similar observations, a serious difficulty has been met with in the observation of the point of contact of the edges of the two disks by a dark spot which has been described, for more than a century, under the name of the "*goutte noire*," or "*ligament noir*," and which seems to have been something of a "*bête noire*" to the astronomers.

It has been held that this was a natural and necessary phenomenon, and that the real moment of contact was marked by the formation of this dark line as the disks came together, and its disappearance as they parted. An explanation was sought in the "irradiation of light," an expression which was rather loosely and vaguely used.

M. Wolf illustrated the principle of this explanation by reference to the appearance of the new moon. When its crescent is little more than a curved line, the rest of its surface is not quite invisible, but is dimly discerned by light reflected from the earth, and the contour of the bright crescent seems to belong to a larger circle than that which bounds the obscure portions. Thus it has been said that any object brightly illuminated appears larger than it really is.

On this supposed fact the explanation of the black line was founded, and its appearance, in all observations of this kind, was considered an absolute necessity.

Some excellent observers, however, supplied with the best instruments, were unable to see it,—a fact sufficient almost of itself to destroy the generality of the phenomenon and reduce it to an accident of observation.

M. Wolf proved this to be the case by a series of experiments, in which the conditions of the astronomical observation were produced artificially.

These experiments showed that the dark line, instead of marking the beginning and end of the transit, considerably preceded the former and followed the latter, and the experimenter concluded that the "ligament noir" was not an essential, but a foreign, phenomenon, whose appearance obscured the real phenomenon and led the observer into error.

This conclusion Giraud-Teulon pronounces unassailable. He differs widely, however, from M. Wolf in his theory of the cause of the obscuration, for which the latter searches in spherical aberration of the telescopic image. Of the figures exhibited in proof of this view, Giraud-Teulon says that he cannot avoid a suspicion that the ocular apparatus of the observer has played the

principal *rôle* in their production. He further claims that, in experiments similar to those of M. Wolf, he has been able to avoid the appearance of the "ligament noir," or to produce it at will, by preserving a perfect adaptation between the refraction of the instrument and that of his own eye, or by disturbing that relation. He recommends the interposition of a stenopœic apparatus between the eye of the observer and the eye-piece of the instrument, and believes that this would dispel the obscuration and bring out clearly the point of contact of the images.

According to Giraud-Teulon, the phenomenon of the "ligament noir" has the same origin as that of the apparent increase of diameter of the lunar crescent and the apparent multiplicity of its horns, and, like it, will disappear on accurate adaptation of the eye.

This illusion in the appearance of the lunar crescent, the rays of stars, and similar phenomena, are known to be caused by monocular polyopia, the result of what Donders calls normal irregular astigmatism, which is dependent on the structure of the crystalline lens.

The principle of this explanation may be illustrated by reference to the optometer of Scheiner, of which Dr. Thomson has made a familiar and valuable means of diagnosis. If a distant point of light be viewed through several small holes close together in an opaque screen,—pin-holes in a card, for instance,—as many lights will be seen as there are holes, if the eye is not accurately focussed; but if the refraction of the eye is perfect the images will all fall upon the same point of the retina, and, covering each other accurately, will be seen as one.

In much the same way, all of the sectors into which the crystalline lens is divided form separate images, which will fall upon the same spot of the retina if the adaptation of the eye is perfect; otherwise they will be seen separately, if the object is small enough, or will cause obscuration and confusion by partial covering and overlapping, if it is larger. The former can be proved by approaching a small black speck on a white ground gradually to the eye, until it is brought within the distance of distinct vision, when it will appear as a circle of gray spots. The latter has been illustrated by reference to the illusion in the appearance of the moon.

I have already occupied too much space, and will not follow further the argument of the author or presume to trespass with any opinions of my own upon even this border region of the great science of astronomy; but that "the object of an optical instrument is to present, at a certain distance from the eye, a certain definite image," and that therefore "the first practical problem to be solved should be to regulate the relations that must exist between this image and the eye of the observer," is a proposition that no one who has had much experience in the use of the ophthalmoscope, particularly by the direct examination, will be slow to accept.

"Know thine own eye" might be a not inappropriate injunction to all engaged in optical experiments or observation.

The author regrets the neglect, on the part of physicists, of the physiology of vision, and says there is good reason to believe that men of the greatest learning too often attribute to the outer or objective world phenomena that exist only in the imperfections of their own eyes.

Myopic individuals may find consolation in the fact that, though emmetropia may be the rule in "the eye of the peasant, the hunter, or the sailor, it is much less invariably so in that of the educated classes, and becomes less and less common as we ascend in the scale of the classes perfected by close work," so that "the more learned one is, the less sure can one be of a perfect eye."

RUPTURED JEJUNUM—ABSENCE AT FIRST OF SERIOUS SYMPTOMS (*Lancet*, December 14, 1872).—John R., aged 32, brewer's man, was admitted into the London Hospital, under the care of Mr. Rivington, February 19, 1872. Patient was walking across a plank laid over a brewer's vat, when he missed his footing, and fell a distance of sixteen feet. When he came to the hospital, he was examined by the house-surgeon, who was unable to detect any sign of a serious injury, and, consequently, gave him an out-patient's ticket. Later in the day he returned, complaining of pain in the chest and also at the lower part of the belly. He was admitted as a case of contused chest. The patient was a very stout man, with much fat on his body, and it was therefore difficult to examine satisfactorily his ribs and sternum. His water was drawn off, and it was like dark tea, without blood. He vomited once when he came in. Subsequently he had a disposition to vomit, but did not bring up anything. When seen about five o'clock by Mr. Rivington he did not exhibit the usual signs of the injury from which he was suffering; he did not complain of pain in the abdomen, he was not sick, and he was not in a state of collapse. In the course of the evening severer symptoms came on, and he died on the following morning at 11 A.M. At the post-mortem examination the jejunum was found ruptured near the duodenum, and the sternum was fractured.

NITRITE OF AMYL IN MELANCHOLIA (Höstermann: *Wiener Med. Presse*, October 20, 1872).—In accordance with the suggestions from English sources and Prof. Meynert, of Vienna, Dr. Höstermann has made a series of experiments with this drug in cases of melancholy.

Inhalations are preferable to subcutaneous injections or to the internal administration of the remedy.

In 10 to 15 seconds the pulse becomes more frequent; in 30 to 40 seconds the face becomes red, the conjunctiva injected, and the subjective warmth of the body increases. At the same time the arteries pulsate more vigorously, the head feels constricted, and the patient experiences the feelings of mild intoxication after wine-drinking. With these symptoms the patient is more lively, and shows it both in his features and his manner. The external signs of the drug disappear in three-quarters of a minute after the cessation of the inhalations; but there seems to be a somewhat more permanent change for the better in the psychical condition of the patient.

This treatment is not suited to those cases where the melancholia depends upon some cause of exciting anxiety, for the excitement produced by the inhalation of the remedy will only increase the malady. It is rather suited to those cases of melancholia due to sluggish circulation and impeded nutrition in the brain.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, JANUARY 18, 1873.

EDITORIAL.

FREE SUMMER PARKS.

WITH the opening of the new year it seems appropriate to bring forward again—and indeed it is none too early—the subject of plans for preventing the infantile mortality of the summer. Many of our readers will remember a communication from Dr. Henry Hartshorne, which appeared in our columns in September last, proposing the establishment of free parks or camping-grounds, where the poor could go by families, and escape the baleful effects of city air. Another article on this subject, by Dr. J. M. Toner, of Washington, published in the *Northwestern Medical and Surgical Journal* for November, is before us, with editorial comments by Dr. H. C. Hand.

We believe that to the *New York Times* is due the credit of proposing the free excursions for the poor children of that city, which were so successfully organized, and which were as successfully imitated by the benevolent here and elsewhere, during the heated term of 1872. The plan now under consideration is an expansion of that excellent scheme. We have at present neither space to discuss it, nor indeed any definite ideas to bring forward as to how or where it can be practically carried out. All that we can do is to invite those who may be able to devise arrangements for the purpose, or who have any suggestions to offer in regard to the matter, to take the earliest opportunity of so doing, and to place our columns at their disposal.

Funds for so admirable an object would, we feel assured, flow freely into the treasury of a properly organized association. But in order that the greatest amount of good may be accomplished, an early and energetic start should be made in the work.

"HOSPITAL SUNDAY."

OUR readers will doubtless have seen this caption in many of the issues of the medical periodicals in Great Britain. It hardly needs either explanation or comment. Assuredly no outgrowth of Christianity can be more genuine or legitimate than the devoting of collections taken at places of worship, and as a part of that worship, to the relief of human suffering. In this city it has for many years past been the custom of the Protestant Episcopal churches to place the money taken at the service on Thanksgiving Day to the credit of the hospital of that denomination; and, for all we know, other sects may have done the same by their own kindred institutions.

We should like to have this a recognized feature of the vast network of charities which exists in so many American cities. Whether by agreement or by the action of individual sects, it would go far towards strengthening the hold of the various beneficent institutions upon the affections and sympathies of the public. Services are held by nearly or quite all the denominations on the day known in this country as Thanksgiving Day, which would therefore be perhaps more suitable and convenient than any given Sunday as the fixed time for remembering the claims of the sick and suffering upon the benevolence of their more favored brethren. Experience has shown that far more is accomplished by such united action than by the irregular movements of individuals, when funds are needed to meet the steadily recurring demands of charitable objects or institutions.

THE MORTUARY LIST FOR 1872.

DURING the year just ended, the profession in this city has suffered serious losses by death. Some of those who have "gone over to the majority," as Jackson, Dickson, Gerhard, Mason, Bell, Wistar, Brookfield, and LaRoche, were men far advanced in life, whose day of active usefulness had long waned. But the destroyer claimed also some, as Hollingsworth, Fish, Robinett, Pepper, and L. S. Stillé, who had not reached the usual limit of man's years of prime. For the unblemished records and honorable memories left by these our brethren, we may well be thankful.

CORRESPONDENCE.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—The writer is the unfortunate author of a paper published in the last volume of the Transactions of the American Medical Association,—a paper which has suffered most grievously from careless proof-reading.

Permit me to point out some of the errors, and their character will sufficiently indicate that the epithet careless is not at all too strong.

On page 126 of the volume referred to, I find "accommodations" substituted for accumulations, and "insidious" for invidious,—in each instance the substitute destroying the meaning of the sentence in which it occurs, if not making utter nonsense. On page 127 the words "round-shirts," "persistence," and "decorations" are given for roundabouts, penitence, and declamations.

On the next page the reader finds in part of a sentence the following, "Carlyle, Mill, Huxley, and Rankin," and possibly wonders who Rankin is. Ask the intelligent and careful proof-reader. The author wrote Ruskin.

On page 130 a sentence reads as follows: "And possibly, too, the best ideal of a medical journal has not yet been obtained, has not yet been developed with the actual." Replace "obtained" by attained, and "with" by in, and the sentence is tolerable; but, as printer and proof-reader have made it, it is intolerably bad.

Other errors almost as mortifying as those that have been mentioned can be found; but the list is long enough. A man, no matter how poor he is, does not like to see his children, no matter how homely they are, walking the streets in rags. Almost equally as trying is it for one to have the children of his brain thrust ragged and disorderly before the public, when the rags and disorder are not of his producing.

Now, the moral of the story is, in my opinion, this: Authors have the right, and should always have the opportunity, of correcting their proof.

T. P.

ANNUAL REPORT OF THE HOSPITAL OF THE PROTESTANT EPISCOPAL CHURCH.

THE Twenty-first Annual Meeting of the Contributors to the Hospital of the Protestant Episcopal Church was held January 7, 1873, pursuant to the charter, at the office, 708 Walnut Street. George Washington Smith, Esq., was called to the chair, and the Rev. John A. Childs, D.D., was appointed Secretary.

The Report of the Board of Managers, together with the annual statements and accounts, was then presented, and on motion it was

Resolved, That the Report and accompanying documents be referred to the Board of Managers, for publication at their discretion.

The following is an abstract of the Report: During the year 940 patients have been admitted; at the date of last report, 104 patients were in the hospitals at the first of the year, making the whole number treated during the year, 1044.

Of these, 941 were discharged, of whom 643 were cured, 167 improved, 57 unimproved, and 74 died, leaving 103, or 67 men, 30 women, and 6 children, in the wards at the end of the year.

There have been 6147 Dispensary patients prescribed for during the year. Of this number, 4448 were medical and 1699 were surgical cases.

The average daily number of patients in the wards of the hospital was 104¾.

The average duration of treatment was 38 days.

The average daily number attending the Dispensary, 20.

The average number of prescriptions daily was 33.

No. of prescriptions given in Dispensary for the year ending December, 1872, 10,170.

Cost of maintaining each patient, $39\frac{80}{100}$.

Daily cost of maintaining the hospital, including medicines for Dispensary patients, $113\frac{88}{100}$.

Total cost of maintaining the hospital for the year, $44,035.71.

For the support of the hospital, the Treasurer reports the following amounts, viz.:

From individuals and churches for the support of beds	$4,457.86
" individual contributions	2,331.00
" churches on Thanksgiving Day	12,722.36
" interest from moneys invested	12,863.25
" Grasby Fund for the support of patients suffering with diseases of the chest	3,324.09
" George Washington Smith for the endowment of a bed for Christ Church (permanent)	5,000.00
" Estate of Edward H. Trotter ($5000, less inheritance tax)	4,762.50
" Superintendent for board of patients	8,275.04
	$53,736.10

At the meeting, I. V. Williamson, Esq., presented to the hospital, through Mr. John Welsh, $35,000,—this, with previous donations of $15,000, making a total of $50,000, the interest of which is to be used for the support of the hospital forever.

S. R. KNIGHT, M.D., *Superintendent.*

REVIEWS AND BOOK NOTICES.

A MANUAL OF HISTOLOGY. By PROF. S. STRICKER, of Vienna, Austria, in co-operation with Th. Meynert, T. von Recklinghausen, Max Schultze, W. Waldeyer, and others. Translated by Henry Power, of London; James J. Putnam and J. Orne Green, of Boston; Henry C. Eno, T. E. Satterthwaite, Edward C. Seguin, Lucius D. Bulkley, Edw. L. Keyes, and F. E. Delafield, of New York. American Translation edited by Albert H. Buck, Assistant Aural Surgeon to the New York Eye and Ear Infirmary. With 431 Illustrations. Large 8vo, pp. 1106. New York, Wm. Wood & Co., 27 Great Jones Street, 1872.

The profession are already so familiar with "Stricker's Histology" that it is scarcely necessary to explain either the object or the scope of the treatise. The present edition, by Wm. Wood & Co., furnishes the entire treatise in a single large and conveniently-arranged volume. It includes as much of the translation of Mr. Power as is contained in the first volume of the New Sydenham Society's Translations, of which two volumes

only have appeared. The translation of Mr. Power covers 406 pages of the present edition; but the remaining articles are translated by the American gentlemen above named. Nearly two-thirds, therefore, of the book are translated by Americans, who are physicians especially interested in the departments which they have undertaken. In this there is evident advantage, as one who is already familiar with a subject is the more likely to grasp obscure points, which are perhaps rendered still more obscure by being couched in a foreign idiom. There is also likely to be more freshness about an article thus translated than if it form, in the original, one of a large number, and by different authors, translated by a single individual; for the weariness which must necessarily grow upon the translator of so large a volume is not relieved by the increasing familiarity which he must acquire if the papers are all by the same author.

This series of papers, edited and in many instances written by Prof. Stricker, constitutes at once the most extended and most accurate treatise on histology extant. And as the study of histology is a subject which admits only the latest and most accurate information to its aid, this work must necessarily supersede all others. It becomes, therefore, absolutely indispensable to every histologist and physiologist in the world, as well as to all physicians and surgeons who would pursue their departments with all the light of modern science. This beautiful edition of Wood & Co., which reflects great credit at once upon the translators and the publishers, will be bought by most who are not subscribers to the New Sydenham Society's valuable publications, while its convenience of form and anticipation of a large portion of Mr. Power's translation will cause it to be purchased by many who are also subscribers to the Society's translations.

English and American physicians have been signally fortunate in the opportunities afforded in the last few years to avail themselves of the labors of German investigators, and in Stricker's Histology, Rindfleisch's Pathological Histology, Niemeyer's practical works, and Frey on the Microscope, they possess a storehouse of information which must not only increase their intelligence, but also their usefulness. J. T.

THE ANATOMY AND DEVELOPMENT OF RODENT ULCER. A Boylston Medical Prize Essay for 1872. By J. COLLINS WARREN, M.D. 8vo, pp. 65. With Two Colored Plates. Boston, Little, Brown & Co., 1872.

This essay is one of the results of a growing inclination on the part of young American physicians and surgeons to make original researches in special subjects, —a work for which many of them have been prepared by instruction and experience in the laboratories of Germany and Austria. Dr. Warren is a young surgeon of Boston, who has evidently profited by his opportunities. He has not only carefully studied cases, but has also made thin sections of the morbid tissue, and furnished accurate drawings of the microscopic appearances afforded by them. It is but justice to state, however, that these drawings, as Dr. Warren informs us, were made upon stone by Dr. H. P. Quincy, artist to the Massachusetts General Hospital, from originals furnished by the author. Dr. Quincy is perhaps the only gentleman in this country who has made the subject of drawing the magnified pictures afforded by the microscope a subject of special study. The importance and success of such drawing have been amply shown in the results of the labors of Mr. T. West, of London.

The observations of Dr. Warren lead him to believe, with Thiersch and Billroth, that rodent ulcer is a form of epithelial cancer, but "the mildest form of cancer with which we have to deal." The following are his conclusions:

1. All those cases of rodent ulcer examined are forms of epithelial cancer.

2. They differ from those forms of epithelial cancer of which cancer of the lower lip is the type, in the small size of the epithelial cells.

3. These ulcers may be divided histologically into two different groups, according to the arrangement of the cancer-cells,—viz., into tubular or alveolar.

In the course of some remarks on the development of the disease, is furnished an admirable *résumé* of the *origin of the cancer-cell*, which should be familiar to every surgeon as well as pathologist. In conclusion, we are informed that "in summing up, then, the results of these observations, we find that in certain cases—

"1. The formation of the cancer-cells is preceded by an escape of the white blood-corpuscles through the walls of the vessels, and an accumulation of similar cells in the adjoining lymphatic canals.

"2. That this is followed by an apparent transformation of these cells into cells resembling strongly the epithelium of the rete Malpighii.

"3. That the epithelium of the parts affected does not appear to take an active part in the process, but may exert a certain influence on the character of the formation taking place.

"4. That the cancer-cells may lie in the lymphatic spaces of the connective tissue, and do not invade, to any appreciable extent, the lymphatic vessels."

THE JOURNAL OF ANATOMY AND PHYSIOLOGY. Conducted by G. M. HUMPHRY, M.D., F.R.S., etc., and WM. TURNER, M.B. Second Series. No. XI., Nov. 1872. Macmillan & Co.

This excellent number of one of the best periodicals published is full of interest to the physician and surgeon. We have only space to note the titles of some of the leading papers: a notice of quadruple mammæ in two adult brothers; tissue-metabolism, a continuation; observations on the distribution of some of the nerves of the head and neck; sphygmography; the effect of exercise on bodily temperature; observations on the structure of the human placenta; action of digitalis on the blood-vessels; on the Kombé arrow-poison; peculiar malformation of the leg and foot; effect of stimuli on the secretion of the parotid gland; valves in the renal veins; experiments as to the causes of the presence of bile-pigment in the urine.

The reports on the Progress of Anatomy, on Physiology, and on the Physiological Action of Medicinal and Poisonous Substances, are complete and full of valuable material.

GLEANINGS FROM OUR EXCHANGES.

MODE OF GROWTH OF LONG BONES (*British Medical Journal*, Sept. 28, 1872).—At the recent meeting of the French Association for the Advancement of Science, at Bordeaux, M. Ollier (Lyons) stated the results of his recent experiments on the mode of growth of the long bones. The theory of peripheric growth, which he has held for a long time, has been lately combated by the learned German doctors Wolf, Calmann, and Meyer, who are supporters of interstitial growth. M. Ollier has observed anew a great many times that two nails placed on the diaphysis of a bone, at an accurately measured distance, are separated by the same space when the animal, having become an adult, is sacrificed. In very young animals there is sometimes a slight divergence, never exceeding more than a fourth of the whole length of the bone. This fact would seem

to weaken the theory, if one did not know that very young and in consequence soft bones are under the general law of growth of soft tissues, of which the development is interstitial. A more considerable divergence of the osteoplasts in adult bones has also been made an objection to the theory of peripheric growth; but the researches of Ranvier have demonstrated the variableness of these elements, and in consequence their utter uselessness in this question. When the cartilage of conjugation is removed, the growth of the bone is stopped, or at least diminished. Interstitial growth is observed occasionally in certain birds, and in some mammals; but in this last case the anomaly explains itself, because the bone, softened by inflammation, has taken the properties of the soft tissues. Moreover, this growth is never more than a very small fraction of the length of the bone which is the seat of it. Passing from the normal to the pathological growth of bone, M. Ollier remarked that since 1867 he has shown that irritation of the diaphyses of a long bone provokes the lengthening of this bone; whilst the irritation of the cartilage of conjugation leads to the arrest of its development, and that not by the more rapid solidification of the epiphysis, but by a simple perturbation in the work of ossification. The clinic confirms the results of the experiment. Another fact, which has great practical importance, is the inequality of the part of the two cartilages of conjugation in the development of bone. The humerus grows especially by the superior cartilage of conjugation; the radius and the ulna, on the contrary, by their inferior cartilage, in such a way that the constituent parts of the elbow are only of very slight utility in the general development of the superior limb. The reverse takes place in the articulation of the knee and the bones which form it. M. Ollier insists on the importance of these facts, because of the results that attend articular resections practised on children. He has observed since 1861 that, after resections of the elbow in young children, the superior limb continues to grow, whilst the inferior limb hardly grows any more after resection of the knee. The deformity which results from this stoppage of the development is more and more exaggerated as the fellow-limb continues its normal growth. After resections, as after certain inflammatory lesions, a growth lengthwise of the limb operated on is sometimes observed. This lengthening is not accompanied by hypertrophy of the bone; it becomes, on the contrary, lighter. Hence M. Ollier has called this growth the atrophic lengthening. M. Ollier explains this anomaly by the diminution of the pressure which the bones exercise on one another. The diminution of this pressure leads, in fact, to an atrophic lengthening. This it is easy to observe in the bones of a paralyzed limb, but without waiting for that general atrophy which soon succeeds the functional inertia of the limb.

Detection of Blood-Stains. — Dr. Edward S. Wood, in the *Boston Medical and Surgical Journal* for January 2, reports that *Fres. Zeitsch. f. Anal. Chem.* (1872, ii. p. 244) contains a note from Dr. Helwig, contradicting a statement made in the *Chem. Centralb.*, 1871, p. 37, that a solution of blood-pigment in iodide of potassium cannot be used for the production of blood-crystals, but only for spectroscopic examinations. It has long been known that a solution of iodide of potassium will extract from clothing the slightest trace of blood-coloring matter, it being possible to obtain a solution suitable for testing even when the clothing has been washed and the stain is very old. In the present instance Dr. Helwig exhibited a specimen of hæmin-crystals which he had obtained by treating a piece of linen upon which a blood-stain had existed for sixteen years, with a solution of iodide of potassium. The residue left after the evaporation of one drop upon a glass slide gave beautiful hæmin-crystals upon the application of Teichmann's test, when the remainder of the solution, examined by the spectroscope, gave an absolutely negative result.

Teichmann's test, the ordinary test for hæmin-crystals, is performed by rubbing upon the dried residue in a watch-glass or on a microscope-slide a very small quantity of ammonic chloride or common salt, adding to the mixture a drop of glacial acetic acid, and warming until bubbles form under the covering glass, showing that the boiling-point of the acetic acid has been reached. Upon cooling, crystals of hæmin can be detected by the microscope.

In the same journal (1872, i. p. 29) we find mentioned by H. Struve an additional test for blood-pigment, which is applicable to the testing of both urine and clothing-stains for blood. This test is based upon the precipitation of hæmatin from an acetic acid solution by tannic acid as tannate of hæmatin, and may be performed in the following way. To the urine or any other liquid suspected to contain hæmatin is added a little ammonia-water or potassic hydrate, then a solution of tannic acid, and finally acetic acid, to distinctly acid reaction. If hæmatin be present, a reddish-brown precipitate, tannate of hæmatin, is formed, which quickly settles and can be very easily washed and collected on a filter. This precipitate, after drying, gives a residue with which we can obtain hæmin-crystals by performing Teichmann's test. This test is far superior to Heller's test for blood in the urine, in which the hæmatin is mechanically carried down with the earthy phosphates, after the addition of ammonic or potassic hydrate. By the above method the author claims to have detected the presence of blood when all other reactions have failed; for instance, in urine when he could not detect the albumen by any of the ordinary tests. In 20 cc. of urine to which 0.023 per cent. of blood was added, a precipitate was obtained which permitted numerous examinations for hæmin-crystals to be made by Teichmann's test.

The same author (*Fres. Zeitsch.*, 1872, ii. p. 150) states that he has separated from the blood two new coloring-matters. One is soluble in alcohol and water, difficultly soluble in ether, and forms, when dry, a dark greenish-brown mass which chars without puffing up, and, after ignition, leaves a residue, consisting of oxide of iron, phosphoric acid, and silica. It is precipitated from its solution in water by acids, and the application of Teichmann's test does not yield hæmin-crystals. The other pigment separates in the form of dark bluish-black microscopic crystals, reminding one of indigo. These crystals are insoluble in water, alcohol, ether, chloroform, and acids, but are soluble in alkalies with the production of a dark-brown solution. If precipitated from the alkaline solution by acetic acid, and the precipitate subjected to Teichmann's test, the result is the most beautiful hæmin-crystals. Concentrated sulphuric and nitric acids dissolve this pigment with a greenish-yellow color, concentrated hydrochloric acid and aqua regia decompose it, and glacial acetic acid is without action upon it, unless ammonic chloride has been previously added, in which case it dissolves it, forming a dark-brown solution, which, upon evaporation, yields large pure hæmin-crystals. After ignition, the residue consists of pure oxide of iron. These crystals he considers to be identical with Virchow's hæmatoidin. An elementary analysis of these pigments is promised.

The Cure of Stammering (*N. Y. Medical Record*, Jan. 1).—The mode of treatment followed by M. Chervin, of Lyons, in this affection, has lately been the subject of investigation by a commission appointed by the Department Council. The commissioners state

that they find the system successful, rapid, and permanent in its effects; which opinion confirms those of earlier date, given by commissions appointed in France, Belgium, Spain, etc.

Eight patients, severely affected with stuttering, were submitted, under the observation of the commissioners, to the system of M. Chervin. They varied in age from ten to twenty-nine years, and none of them could speak without stammering to an extent most distressing to themselves and to those who heard and saw them. In some cases the act of speaking was accompanied with convulsive movements of the mouth and eyes; in others, with spasmodic respiratory movements. Some had stammered from their infancy; in others the defect had been caused by a shock to the nervous system. Ten days after they had been placed under M. Chervin's treatment they were seen by the commissioners, and each of them could then speak distinctly, without stammering or hesitation; and on the 28th they were pronounced cured, speaking then with natural ease and rapidity.

The system is as follows. All mechanical contrivances are discarded; but he teaches the patient, by means of a large number of exercises, gradually to pronounce, with distinctness, vowels, consonants, syllables, and sentences. He pays great attention to the act of respiration, which he seeks to regulate. He teaches his patients to take at certain intervals a slow but normal inspiration, which is succeeded by an even, continuous, and loud expiration, during which pronunciation is effected. The course of treatment occupies twenty days, the time being divided into three periods. During the first the patient is restricted to complete silence, so that the old habit may be broken; during the second period the patient is taught to speak slowly and deliberately; and during the third period he acquires the practice of speaking fluently and without clipping the words. This method is stated to have succeeded in the most difficult cases, and the good results are said to be permanent; but this greatly depends on the patient, who must occasionally make use of the means which were first used to cure him.

Testing the Purity of Air (*Dublin Journal of Medical Science*, Nov. 1872).—Dr. R. Angus Smith has devised a simple form of apparatus by which any person of ordinary intelligence and education might readily determine whether or not the amount of carbonic acid in the air of a place was above the normal or any other proportion. Baryta-water is a most sensitive re-agent for the detection and precipitation of carbonic acid. If half an ounce of baryta-water, containing about 0.08 gramme of baryta, be placed in a clear glass bottle having a capacity of 640 cubic centimetres (22 ounces), and the latter be well shaken, a turbidity (produced by a precipitation of barium carbonate) will be observed, if the proportion of carbonic acid in the air be 0.04 per cent.,—that is to say, the 0.2515 cubic centimetres of carbonic acid contained in the bottle will unite with the barium of the baryta-water, and form 0.00224 gramme of insoluble barium carbonate in half an ounce of water. The precipitate obtained renders the liquid turbid, but not quite opaque; it may be described as translucent. If a bottle of the capacity of 154 cubic centimetres (5.42 ounces) be employed instead of one of 640 cubic centimetres, no turbidity is produced in the baryta-water; on the other hand, if the bottle contain 44 ounces, or the air 0.08 of carbonic acid, the precipitate is twice as abundant. It is easy, then, by making an experiment in the pure open air, to observe the density of the turbidity caused by shaking half an ounce of baryta-water in a closed bottle or jar of 22 ounces capacity; and if, on repeating the experiment in a room, the turbidity is increased, then it is to be concluded that the carbonic acid is in excess and the air impure. Any medical officer of health or hospital physician might, by the aid of a few clear glass bottles of different sizes and a supply of baryta-water (lime-water might be substituted for baryta-water), easily ascertain the proportion of carbonic acid in the atmosphere of the places under his charge. A little practice would soon enable him to discriminate between the precipitate given by 0.04 and 0.08 per cent. of carbonic acid in the air. As houses practically never have as pure air as the tops of mountains, we may rest satisfied when a bottle of 3.78 ounces avoirdupois capacity gives no precipitate when half an ounce of baryta-water is shaken up in it. The air under such circumstances may contain 0.06, but cannot include 0.07, per cent. of carbonic acid. If lime-water be used, then half an ounce of it (containing 0.0195 gramme of lime) is to be shaken up in a 10½-ounce bottle, and it will remain clear if the carbonic acid be below 0.07 per cent.

Borax and Nitrate of Potassa for Loss of Voice.—Dr. John W. Corson, of Orange, N.J., in the *N. Y. Medical Record* of January 1, 1873, gives a number of cases, and then says,—

"For clearness and convenience, we may sum up the results of our experience in the following brief conclusions:

"1. That in sudden hoarseness or loss of voice in public speakers or singers, from 'colds,' relief for an hour or so, as by magic, may often be obtained by slowly dissolving and partially swallowing a lump of borax the size of a garden-pea, or about three or four grains, held in the mouth for ten minutes before speaking or singing. This produces a profuse secretion of saliva, or 'watering' of the mouth and throat. It probably restores the voice or *tone* to the dried vocal cords, just as 'wetting' brings back the missing notes to a flute when it is too dry.

"2. Such 'colds' may be frequently 'broken up' at the very commencement; and this restorative action of the borax to the voice may be materially aided by promptly taking, the evening previous to a public effort, dissolved in a glass of sweetened water, a piece of the nitrate of potassa, or 'saltpetre,' a little larger than a garden-pea, or about five grains, on going to bed, and covering with an extra blanket. The patient should keep warm next day. This both moistens the dry throat and further relieves the symptoms of 'cold' and slight blood-poisoning from suppressed perspiration, by reopening the millions of pores of the skin more or less closed by cold.

"3. These remedies have the three recommendations of being easy to obtain, convenient to carry in travelling, and perfectly harmless.

"4. They are nearly or quite useless in the actual cure of long-continued chronic disease of the throat, or acute inflammation or 'tonsillitis,' both of which require other appropriate treatment."

To Kill Lice (*Edinburgh Medical Journal*, Nov. 1872).—All kinds of lice and their nits may be got rid of, *tuto, cito, et jucunde*, by washing with a simple decoction of stavesacre (*Delphinium staphisagria*), or with a lotion made with the bruised seeds in vinegar, or with the tincture, or by rubbing in a salve made with the seeds and four times their weight of lard very carefully beaten together. The acetic solution and the tincture are the cleanliest and most agreeable preparations, but all are equally efficacious in destroying both the creatures and their eggs, and even in relieving the intolerable itching which their casual presence leaves behind on many sensitive skins. The alkaloid delphinia may be also employed, but possesses no advantage, except in the preparation of an ointment, when for any reason that form of application should be preferred.

MISCELLANY.

POWER OF IMAGINATION.—Dr. D. H. Tuke, in his recent work, "Illustrations of the Influence of the Mind upon the Body," etc., quotes an anecdote given by Mr. Braid, that "he requested four gentlemen, in good health, and from 40 to 56 years of age, to lay their arms on a table with the palms of their hands upwards. Each was to look at the palm of his hand for a few minutes with fixed attention, and watch the result. Entire silence was enjoined. What happened? 'In about five minutes, the first, one of the present members of the Royal Academy, stated that he felt a sensation of *great cold* in the hand; another, who is a very talented author, said that for some time he thought nothing was going to happen, but at last a *darting, pricking* sensation took place from the palm of the hand, as if electric sparks were being drawn from it; the third gentleman, lately mayor of a large borough, said that he felt a very uncomfortable sensation of heat come over his hand; the fourth, secretary to an important association, had become rigidly cataleptic, his arm being firmly fixed to the table.'

"It would be difficult to determine in these instances by what train of thought these different results came to pass; whether each imagined that such and such effects would be produced by the process, or whether an accidental condition of the hand at the moment caused certain very slight suggestions, which were intensified by the attention directed to them. Probably the former; but one thing is certain, that had Mr. Braid suggested other effects, instead of preserving silence, the character of the sensations would have been greatly modified."

NEWSPAPERS.—*The Edinburgh Medical Journal* says, "One of the recent deliverers of the introductory lectures in London attacked the *Daily Telegraph*, warning the students not to read it, and got most mercilessly mauled by that journal as his reward; but Professor Max Müller is even bolder, for he attacks the whole genus, and says that the daily perusal of a newspaper for five years would break down the most vigorous memory in the world; the constant succession of fleeting impressions allowing none to take strong hold, and thus enfeebling the retentive power. The *Lancet* very properly points out that it is not merely the memory that is thus impaired, but also the judgment, which, by a rapid transition from subject to subject, becomes perfunctory in its exercise; the faculty of sustained attention is impaired, and a superficial, uninquiring, and far from independent habit of mind is induced. Ephemeral literature is very often recommended as an occasional relief from severer studies, and, judiciously practised, the advice may be productive of good; but of the truth of our contemporary's remarks there can be no doubt, and all wise students should reduce the perusal of ephemeral literature to a minimum."

℞.—A correspondent of the *Lancet* says, "It is an interesting fact, and one of which very many of your readers may be unaware, that the prefix which we daily place at the head of our prescriptions, imagining it to be the letter R as representing the word *recipe*, is in reality a relic of superstition. To planetary influence from the most ancient periods the very successful effects of the healing art were ascribed, and it was usual to prefix to receipts the symbol of the planet under whose reign the ingredients were to be collected. The astrological symbol of Jupiter was subsequently invariably employed, and has now been disguised by the addition of the down stroke, the cloven foot (℞) alone remaining as the tell-tale of its superstitious origin. Such is the history of what we usually prefix at the head of every prescription, and is worth knowing as an interesting fact, a link still binding together the present and the past, a relic of the dark days of physic."

EFFECTS OF TOBACCO.—The *Medical Press and Circular*, in the course of an article on this subject, says M. Bertillon found that 102 of the pupils attending the Polytechnic School of Paris smoked tobacco, while 58 did not. Arranging the two categories in the order of merit, according to the results of examinations, he found that, in every grade, non-smokers held the higher rank, and that the smokers deteriorated from the time they entered until they left the school. Facts like these induced the Minister of Public Instruction to issue to the directors of colleges and schools throughout France a circular, forbidding tobacco to students, on the ground that it checked their physical and intellectual development. The editor says, "Among ourselves the habit is getting too common. . . . . But how is the habit to be stopped, *when meerschaum pipes are even given for prizes in Sunday-schools?*"

THE YALE MEDICAL SCHOOL.—The *College Courant* says, "We see by the last catalogue that provision has been made in the plan of the new hospital building, at New Haven, for the accommodation and advantage of the Yale Medical School. Such a spirit is as pleasant as it is wise. The efficiency of the Medical School directly affects the success of the hospital management, but we feel the accommodation to the college is dictated as much by a friendly feeling towards it as by an enlightened selfishness. We are glad to see such a cordial spirit developing between the citizens and the college, for the idea that there is an irrepressible conflict between 'town and gown' has lived fully long enough and done fully enough mischief."

POLITICS AND MEDICINE.—According to the Paris correspondent of the *New York Daily Times*, evident radicalism prevails at the Paris School of Medicine among the students and professors, while anything like communist language brings down the house. So well is the audience known, that professors are said to introduce politics designedly and for the purpose of winning popularity.

DR. MAX VON PETTENKOFER has been called from the chair of hygiene, in Munich, to the same in the Hochschule at Vienna.

KITCHEN-RANGE EXPLOSIONS.—One of those singular "epidemics" of a certain kind of accident, often noticed, has just occurred in this country. In various regions there have been, between the 28th of December, 1872, and the 4th of January, 1873, about a dozen explosions of the boilers of kitchen-ranges; several of them attended with the loss of one or more lives. Of course the cold weather and the consequent freezing of the pipes may be assigned as the general cause of these disasters; but why they should have been so rare in former winters and so numerous in this can hardly be explained.

A TELEGRAPHIC dispatch, dated London, January 6, says, "In the case of the ex-Emperor Napoleon, a second operation was performed at noon to-day. The patient was put under the influence of chloroform. The difficulties were unusually great, but the results were not unfavorable. The Emperor suffered much, but rather from constitutional disturbance than from the effects of the operation. His strength holds out well."

[Our readers will all know by this time of the fatal result in the Emperor's case, which took place January 9, an hour or two before a third *séance* of lithotrity was contemplated.]

COLLEGE OF PHYSICIANS OF PHILADELPHIA.—At the stated meeting of this body, held January 1, the following officers were elected for the year:

President, Dr. George B. Wood.
Vice-President, Dr. George W. Norris.
Secretary, Dr. John H. Packard.
Treasurer, Dr. J. Rodman Paul.
Recorder, Dr. J. Ewing Mears.
Librarian, Dr. Robert Bridges.
Censors, Drs. Isaac Hays, Joseph Carson, Lewis Rodman, Edward Hartshorne.
Councillors (for three years), Drs. W. S. W. Ruschenberger and James H. Hutchinson.

STATISTICAL.—The *Wiener Med. Presse* of Nov. 17 says, "There were in Italy, between 1864 and 1870, 55,049 deaths from other than natural causes, of which 42,870 were accidental, 17,090 by murder, 4984 by suicide, 184 by judicial procedure, and 22 by duels. The greatest number of suicides took place in Calabria, Sardinia, and Lombardy; the smallest in the Basilicate, in Emilia, and in Liguria. The deaths by intemperance were most numerous in Piedmont, Lombardy, and Venetia."

APPOINTMENTS.—Drs. Wharton Sinkler and Horace Y. Evans have been appointed on the medical staff of the Episcopal Hospital, in this city, to fill the vacancies caused by the resignations of Drs. A. M. Slocum and J. Cheston Morris; and Drs. Bennett and Henry were elected to serve on the dispensary staff.

Dr. James Markoe has been appointed one of the physicians to Girard College, in the place of Dr. Hollingsworth, deceased.

EVEN so late as 1680 a pound of cinchona cost in England eight pounds sterling. But it had its enemies at the same time. In 1729, Johann Canold, a physician of Breslau, declared upon his death-bed that he would sooner die than owe his life to an agent opposed to all his principles.

THE census of France for 1872, just completed, shows the population to be 36,102,921, a decrease of 366,935 since 1866. The decrease is attributed mainly to the war, besides which causes there have been many fatal cases of smallpox and a falling-off in the number of marriages.

DR. WILMER WORTHINGTON, of West Chester, Pa., an old and highly-esteemed practitioner of medicine, for several years past Speaker of the lower house of the State Legislature, is very ill at his home, and fears are entertained that he cannot recover.

PROFESSOR KLOB is to be transferred from Vienna to Prague, to take the chair of Pathological Anatomy vacated by the death of Prof. Treitz, whose suicide we noted some time since.

DR. CARL RUDOLPH BRAUN, the distinguished Professor of Obstetrics and Gynæcology at the University of Vienna, has been raised to knighthood, with the title of "Fernwald."

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending Jan. 11, 1873, were 325; 200 adults, and 125 minors. 10 were of bodies brought from the country; making the mortality of the city 315. Among the causes of death were:

Consumption of the Lungs	41
Other Diseases of the Respiratory Organs	70
Diseases of the Circulatory Apparatus	21
Diseases of the Brain and Nervous System	42
Diseases of the Digestive Apparatus	21
Hernia	3
Zymotic Diseases	18
Typhoid Fever	4
Casualties	10
Exposure	1
Cancer	2
Intemperance	3
Suicide	1
Debility (including "Inanition" and "Marasmus")	30
Still-born	21
Old Age	16

(The interments reported for the week ending Jan. 13, 1872, were 504.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Jan. 5	37.0°	31.0°	29.84 in.
" 6	36.0	26.5	30.33 in.
" 7	31.5	21.5	30.49 in.
" 8	33.0	20.0	30.16 in. (Rain.)
" 9	33.0	22.0	30.11 in.
" 10	28.0	18.0	30.28 in.
" 11	16.0	8.0	30.50 in.